COMMUNITY INVOLVEMENT OF OFFSHORE WIND / PUBLIC COMMENT

Focus Group Summary

In order to better understand community issues related to wind turbine siting on Lake Michigan, two focus groups were held – one in Manitowoc on August 5, 2008 and one in Racine on August 6, 2008. Twelve people participated in the Manitowoc session. Backgrounds of these people included elected officials, academics, agency representatives, and representatives from concerned environmental organizations and for-profit businesses. In Racine, eleven people attended the session and were from similar backgrounds. The major difference between the two groups was the participation in Manitowoc of three people who work in the energy industry, either public or private, and could be considered "experts" in the field. The remainder of the people at this session had some knowledge of the topic through occasional readings. In Racine, five people followed the topic regularly in the news and six others were occasional readers.

Discussions in both groups covered a wide variety of topics and often issues overlapped between several topics. From both focus group sessions, Manitowoc and Racine, four major topic areas were identified:

- Information Sources
- Energy Production: with subtopics of diversity needs, climate change, efficiency, education, decision drivers, economics and politics, and job creation
- Siting Wind Turbines: with subtopics of community impacts and environmental impacts
- Information needs for decision-making.

The following discussion summarizes the concerns and questions that came up between both groups and is organized into the four major topic areas and the corresponding subtopics. The document concludes with some discussion of some of the key findings of the two focus groups.

Information Sources

Sources of information on wind energy participants had been exposed to:

- Manitowoc: a wide range of professional sources, including the US Department of Energy, Florida Power and Light, National Association of Regulatory Commissioners, Power Engineering (trade magazine), studies from European countries, National Laboratories, and Lakeland Technical College. Lay resources included Public and National television networks, the Internet, and list serves on alternative energy.
- Concern was expressed regarding the accuracy of the information Manitowoc participants had encountered. Some participants felt that several of the misconceptions about wind power were being perpetuated by several of these sources.

- Racine: magazines and newsletters on areas impacted by wind turbines, such as boating and wildlife magazines. Some participants cited seminars put on by their professional organizations. One individual sat on a committee that had to approve the siting of a wind turbine on land. Several had actually toured a wind turbine site. Wisconsin's Focus on Energy program was named as a good source of information.
- There was frustration expressed regarding finding accurate, trusted, current information, especially for the lay public. Many of the reports cited were five or more years old.
- They expressed the opinion that community forums are the best for local projects so that local impact information can be presented and there is time for discussion and idea sharing. This is not the same as a public hearing for the project, one participant made clear. It should happen at the very beginning of a project while there is still time to make modifications and for the general public to absorb the information, better understand the specific situation, and make better decisions.
- Some focus group attendees suggested that there be a state-sponsored website on wind
 energy that was regularly updated. Webinars was another way participants mentioned as
 a potential way to get the latest information to a large number of people, as well as a
 statewide news distribution, with articles written by the various state task forces on all
 energy issues.
- Participants suggested that more tours of wind turbines be offered to help dispel some of the myths that they felt were currently being spread on the topic.

Energy Production

Energy Diversity Concerns:

- Many participants believed that it will take a balanced approach to solve our problems. Diversity in energy sources is the key, they said.
- Participants expressed a need to think regionally they said that some areas might use wind, solar, hydro, nuclear, or clean coal processes. Participants also expressed the idea that each region will have to determine what the most cost effective mix for their area is.
- Participants agreed, corn based ethanol is not the way to go. They felt that this energy source had a huge negative impact on water quality and its production may not be very energy efficient.
- Participants also said residents of Wisconsin need to look at the total impacts of all power generation both short and long term and make sure that this is factored into the data used for cost comparison.

- Participants said that whatever Wisconsin's short term action will be, it needs to be compatible with Wisconsin's long term objectives. Participants expressed a strong desire for a comprehensive strategy, and specifically mentioned that they wanted to avoid compartmentalizing energy production.
- Several participants in both focus groups felt that there was uncertainty as to the direction energy production might take. Some said maybe energy generation will go to home or neighborhood generation.
- Participants said the absence of good trend data makes decision-making on energy development difficult.

Climate Change Concerns:

- For some, there was a belief that fossil fuels are not impacting climate change. Other participants said that even if one did not believe in human-induced global warming, the climate was still changing rapidly and petroleum was a limited fuel source.
- One participant stated that we do not control our own destiny if we have to depend on petroleum from hostile countries, noting the extensive economic impact of sending so much money to other countries.
- For those citizens that did acknowledge a human impact on climate change, they felt that they were ready to try something new if it was cost effective. They said it was imperative to change.
- Participants said the public is looking for government and industry initiatives to set them in the right direction.

Efficiency Concerns:

- Participants said that the low-hanging fruit was in energy efficiency in production, transmission, and use. They expressed a desire to maximize efficiency before any construction is done.
- One issue some participants had with this approach was the fact that energy producers' profits could be significantly impacted.
- Some said perhaps there would need to be some type of reward for assisting consumers to reach goals of renewable energy usage quotas. They expressed a desire for incentives to buy better appliances. One participant suggested an appliance surcharge, based on energy usage.
- Participants also noted that given the current economy, many people cannot afford to
 make changes to their home or in their appliances. They felt that this needed to be
 addressed if we really wanted to reduce our usage.

• Members of the American public need to understand all the ways that they use energy, participants said. All participants agreed that curtailing demand should be our first move.

Education Concerns:

- Both groups felt that education was the key to good decision-making regarding wind turbines and energy production in general.
- Several noted that general education is important, but people do not really listen until they are personally impacted by a project.
- Participants stated that individuals need to see real numbers as they relate directly to them.
 Several added that the public in general does not understand the full long-term costs of different types of energy.
- Participants expressed a desire for the public to have more information, so they could better understand what roll wind energy should or could play. Such information could determine if the public would accept wind turbines, participants said.
- They also noted that many people do not understand the impact that China and India's increased use of fossil fuels will have on our economy, with education on these issues necessary as well.

Decision Drivers

- Participants wanted to know what the state was talking about in terms of capacity for wind energy. They asked how many turbines does Wisconsin need? Will it be enough turbines to get 10% of our renewable energy from wind alone? What is the mix of turbines on land and turbines needed on water? Is the state considering putting every turbine on one site or distributed around the state to better deal with transmission issues?
- Participants noted that coastal cities are in an air quality nonattainment zone. Some participants felt that if wind energy were to help remove that designation, people would be more willing to accept some impact from the turbines.
- Participants stated that the public needs to see real numbers so that they can understand the relationship between energy production and health. It will help the public better understand the need for alternative energy sources, participants said.
- The question of whether wind turbines will actually take fossil fuel energy sources off line came up several times during the discussions. Participants asked, will wind energy be self-supporting?

Economic and Political Considerations

- Both focus group sessions believed that economics should drive wind turbine placement, not the government. If wind will make money, they felt, it will happen.
- Participants also noted that government needs to be very careful how it uses incentives.
 The better place to put our money is in research, not subsidize the industry, some participants said.
- There was a concern that politics always seems to play such a large role and as a result, it can really interfere with economics.
- Participants asked what, if any, lessons had been learned from the fuel crisis of the 1970s. There was concern that the same mistakes might be made again.
- Participants expressed a need to connect the end users with the true cost of production.
- One participant asked, how do we mitigate emissions but not stop our economy? There was also concern that low income families cannot afford to pay more for green energy, and as our economy declines, more people will fall into that category.
- Participants stated their belief that the Federal energy policy plays a big role in energy production.
- There was concern that producers and consumers will not know which way to turn, that change is expensive, and companies cannot afford to make wrong decisions.

Job Creation

- All focus group participants expressed a desire for Wisconsin to be a leader in renewable energy and emission reduction and not a follower of other states.
- Participants want the companies that construct wind turbines and other equipment to be from Wisconsin, not another state.
- Several participants even suggested that maybe we should build a pilot for deep water turbines. We could be the leader with good research which could result in new businesses and new, good-paying jobs, they suggested. This would be a good investment for Wisconsin, participants felt.

Siting of Wind Turbines

Community Impact

Participants did not outright reject the idea of wind turbines, but did express the view that
turbines would have to be placed in pockets, not block the entire view of harbors, and not
impair navigation or negatively impact fishing.

- It was felt that people would not want turbines to fill their picture window but they would probably be receptive to some "toothpicks" on the horizon.
- If towers were located in the near-shore, participants thought that communities would be looking for some type of reimbursement for the visual impact. Someone mentioned a need to look at the tax structure and consider private company incentives to find a way to return money to the community.
- One participant said that property owners do want to know how effective that source of
 energy production will be and will want compensation before agreeing to the project if
 they will be seriously impacted.
- Both focus groups reiterated that part of the acceptance of the location decision will be based on what is gained versus what Wisconsin currently has is what we get from wind better than a coal plant?
- Noise and ice throws were also brought up as issues. The participants asked whether
 Wisconsin had good current data on this. However, several people felt that need for
 energy alone may override some of the objections.
- An interesting question was raised as to whether young people see wind towers as bad if it is explained that they are producing clean energy.
- If marketed properly, some participants felt wind turbines could become a real plus in attracting people and new businesses. On the other hand, they asked, how could communities resolve conflicts of interest?

Environmental Impact

- Environmental issues surrounding the siting of wind turbines were a major concern for many participants. There is a real need for additional information on bird migration patterns, bat populations, fish, and lake currents, participants said.
- There was a sense that there is a lot of conflicting information on these topics and participants felt that it would be very difficult to make decisions on wind turbine placement in Lake Michigan without good scientific data. If studies showed that wind turbines would not impact fishing or most boating, the acceptance would be better, participants conjectured.
- Someone asked if people would be willing to trade pristine views for only 1-2% of their power needs? The groups felt that the answer would be no.
- They also asked if wind farms would actually decrease the need for or even replace any of Wisconsin's coal plants. Would they reduce water needs for power generation or reduce pollution? Would they reduce pollution and improve people's health, especially children?

• If so, several attendees thought that people may even be willing to accept some wildlife impact in return for a cleaner environment and better health.

Mid-lake Reef

- The mid-lake reef in Lake Michigan was brought up at both sessions as a special area of concern.
- Participants asked whether we could get the power back to users in a cost effective manner due to the distance between the reef and the coast. Would we use a big cable? What impact will that have on the lake? What would be the footprint of such a setup? How is it anchored? How do we service such a facility?
- All members of the groups felt that there definitely needs to be more information on the spawning activities on the reef to know if we can place towers without a major impact.
- Some participants felt that if we had to have wind turbines somewhere in the lake, they would rather have them on the reef than along the shore.

Information Needs

As a final question, both sessions were asked to summarize what they saw as important data needs for decision-making. The following is a list of their recommendations:

- What are other Great Lakes states doing? Are we behind or a leader? Are we working together to leverage our money and research?
- There is a huge data gap on the impact to birds and bats for both land and water based turbines. How can we get peer-reviewed data on these issues? We cannot move forward without this information. We need better avian migration and marine animal reproduction information. What impact would this have on fishing or even changes to lake currents?
- The Governor's task force on global warming should put out what it knows about wind power and then present a series of scenarios. From this it can be determined at what point are people willing to say yes. Wisconsin needs to look at the impact for several levels of construction. How may turbines would you need to make this profitable and what would be the natural resource impact of each assumption?
- Aesthetics, economics, and environment: There is a need for data on all three to make any sort of decisions on wind tower placement. Wisconsin needs to gather data from other places and then plug the data gaps. The state needs to first decide if wind will work and then analyze placement on the lake.

- Wisconsin needs to understand transmission issues so this information can be included in the decision-making. We also need the costs on infrastructure support construction, servicing, winter ice, and storm issues. How long will these towers last in the lake?
- There is a need for better wind maps to get the most cost effective siting as well as to explain to the public why certain places were chosen.
- Does manipulation of the market through incentives work long term?
- What is the impact to land values and tourism? There is a need for actual data as current as possible. This needs to be an ongoing study. How do you determine mitigation for this?
- How many dollars is Wisconsin prepared to put into impact studies? Participants understood that project developers usually pay for this; however, other states are taking the lead and beginning the research. There was a desire to partner with them to conduct these studies. This research should not be done in a vacuum.
- Citizens need to know where they can find information on new projects. This is the first time that many had heard of the proposal for the mid-lake reef. There was general agreement that this information needs to be more transparent.

Key Findings from Focus Groups

Although the focus groups cannot be considered representative of the general Wisconsin population and thus results should not be generalized, there were a number of key findings from the Manitowoc and Racine focus groups.

- Participants did not outright reject the idea of wind turbines, nor did they unreservedly embrace it. They advocated a weighing of what would be gained with offshore wind versus what energy options Wisconsin currently has.
- Participants did not see wind as the silver bullet. They felt need to put it in perspective with all of the other power sources available. They believed that it will take a balanced approach to solve our problems. They expressed a strong desire for a long-term, comprehensive strategy.
- There was some concern with how Wisconsin would know whether big wind farms were the right direction to take. Participants wanted to know, how effective is wind generated power compared to other power sources?
- At the same time, participants felt that they were ready to try something new, if it will be cost effective.
- Participants felt that current information was paramount if good decisions were to be made. Both groups felt that education was the key to good decision-making regarding wind turbines and energy production in general.

- Many participants agreed the market should determine the directions taken.
- Participants felt that Wisconsin should be on top of the emerging wind energy industry.
- In general, participants expressed a need to know much more information. They want to be better informed before making any decisions about offshore wind.